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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,871	09/03/2004	Claudia Wood	257557US0PCT	4676

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.

1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

SILVERMAN, ERIC E

ART UNIT

PAPER NUMBER

1618

NOTIFICATION DATE

DELIVERY MODE

07/15/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/506,871

**Applicant(s)**

WOOD ET AL.

**Examiner**

ERIC E. SILVERMAN

**Art Unit**

1618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5,9,11-15,17,18,22-24 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,9,11-15,17,18,22-24 and 27-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/5/2009 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 9, 11-15, 17, 18, 22-24, 27-29, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,380,600 to Hosda in view of US 6,964,774 to Dieing.

Hosda's teachings have been discussed previously.

What is lacking is a quarternary nitrogen monomer of instant claim 1. Hosda teaches quarternary amine monomers that are alkylene amine esters of (meth)acrylate.

Dieing teaches cosmetic copolymers that are made from monomers copolymerized with PEG. As preferred monomers, Dieing teaches that, for example,

vinylimidazole or alkylene amine esters of (meth)acrylate may be used. Col. 8. Amine monomers are quaternized, for example, by reaction with methyl chloride. Col. 9.

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time of the invention to include methyl vinylimidazolium chloride in place of the alkylene amine esters of (meth)acrylate of Hosda. When two materials are taught to be equivalents, or useful in the art for the same purpose, then substituting one for the other is obvious. Here, the two monomers are both taught to be useful in the same types of cosmetic polymers.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosda in view of Dieing, as applied to claims 1, 9, 11-15, 17, 18, 22-24, 27-29, 31, and 32, above, and in further view of US 5,223,247 to Koplow.

What is lacking from Hosda and Dieing is a teaching of propellant. Koplow teaches that hair compositions may be formulated as sprays with 20-50% propellant (overlapping with instant claim's amount).

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time of the invention to use propellant in the amount taught by Koplow, because the art teaches that this is standard in the formulation of hair sprays.

### ***Response to Arguments***

Applicants' arguments were fully considered, and were partially persuasive. Applicants' argument that Hosda does not teach the quaternized amines currently required by claim 1 was persuasive as to the rejections in the final office action, but is moot in view of the new grounds of rejections discussed above. Applicants' argument

regarding the amount of water in Hosda are unpersuasive for several reasons. First, Applicants' analysis of the amount of water in Hosda is incorrect; the analysis in the final rejection mailed 1/6/2009 is correct. Applicants' analysis excludes the amounts of materials other than monomers and water in the reaction mixture. Applicants' analysis does not take into account that Hosda prefers the inclusion of organic solvents and inorganic materials in addition to water and monomers. These other materials cannot be ignored in determining the weight percentage of any component in the reaction mixture, because when included (and Hosda prefers their inclusion) they make up a non-negligible amount of the reaction mixture's weight. Second, there is no evidence that inclusion of more than 20% water in the reaction mixture materially changes the properties of the polymer. Applicants' supposed evidence of this comes from the specification on page 29, lines 8-16 and page 7, lines 26-42. The section of page 7 indicates that "polymers according to the invention are markedly superior with regard to their property to mixtures in which the polymerization is realized in the presences of relatively large amounts of water" (emphasis added). This section of the specification teaches that the polymers have better properties when large amounts of water are used in the polymerization, whereas Applicants' now allege that smaller amounts of water yield superior properties. This appears to contradict the cited portion of page 29, which indicates that "the content of water in the reaction mixture is less than 20% by weight ... [with preference] to working under essentially anhydrous conditions and carrying out a bulk polymerization." Regardless of what the apparently self-contradictory specification may be trying to convey, it does not give any reason why polymers with prepared with

more than 20% water in the reaction mixture are unacceptable; indeed, the section on page 7 would suggest that polymers prepared in mixtures with large amounts of water have acceptable, if not superior, properties. Applicants' also point to the table on page 46 of the specification as evidence of superior properties. In response to the concern expressed in the previous office Action, Applicants' now aver that the solids content in this table refers to the solids content in the polymerization mixture, not the solids content of the polymer in the shampoo. Applicant's allegation appears to be at odds with the specification. For example, the specification on pages 39-40 indicates that example 1 is prepared with 7% water (93% solids). But in the table on page 46, Example 1 is said to have 60.2% solids (39.8% water). It is not clear at all what the percent solids in the table refers to, and so it is impossible to analyze the data in this table.

For the sake of argument, if we assume that the solids content in the table does refer to the solids content of the polymerization mixture (as Applicants' reply alleges), it is readily apparent that the content of solids in the polymerization ranges from 60.8 (comparison 2b) to 10.8 (comparison 2a). This means that the water content ranges from 39.2 (Comparison 2b:  $100-60.8=39.2$ ) to 89.2 (comparison 2a:  $100-10.8=89.2$ ). None of these examples, then, give any information about a polymer prepared with less than 20% water in the reaction mixture.

Finally, even if the data in the table made any sense, and even if it does indicate that the polymer of example 1 has some advantage over the polymers of the comparative examples, this would still be insufficient to overcome the *prima facie*

showing of obviousness. The table has data for only one polymer, with one chemical composition. The claims are drawn to polymers with a variety of chemical structures and compositions. There is no reason to believe that this single polymer of the example is representative of the myriad of polymers of the claims. An evidentiary showing can only overcome obviousness to the extent that the showing is commensurate in scope with the claims. The showing here is not commensurate in scope with the claims.

### ***Conclusion***

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC E. SILVERMAN whose telephone number is (571)272-5549. The examiner can normally be reached on Monday to Thursday 7:00 am to 5:00 pm and Friday 7:00 am to noon.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on 571 272 0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric E Silverman/  
Primary Examiner, Art Unit 1618